§ 85.524

- (6) You must notify us by electronic submission in a format specified by the Administrator with all required documentation. The following must be submitted.
- (i) You must describe how your conversion system complies with the good engineering judgment criteria §85.520(b)(3) and/or other requirements under this subpart or other applicable subparts such that the conversion system qualifies as a clean alternative fuel conversion. The submission must provide a level of technical detail sufficient for EPA to confirm the conversion system's ability to maintain or improve on emission levels in a worst case vehicle/engine. The submission of technical information must include a complete characterization of exhaust and evaporative emissions control strategies, the fuel delivery system, durability, and specifications related to OBD system functionality. You must present detailed information to confirm the durability of all relevant new and existing components and to explain why the conversion system will not harm the emission control system or degrade the emissions. EPA may ask you to supply additional information, including test data, to support the claim that the conversion system does not increase emissions and involves good engineering judgment that is being applied for purposes of conversion to a clean alternative fuel.
- (ii) You must describe the group of vehicles/engines (conversion test group/conversion engine family) that is covered by your notification based on the criteria specified in paragraph (b)(2) of this section.
- (iii) In lieu of specific test data, you may submit the following attestations for the appropriate statements of compliance, if you have sufficient basis to prove the statement is valid.
- (A) The test group/engine family converted to an alternative fuel has properly exercised the optional and applicable statements of compliance or waivers in the certification regulations such as those specified in 40 CFR part 86, subparts A, B, and S and 40 CFR part 1065. Attest to each statement or waiver in your notification.
- (B) The test group/engine family converted to dual-fuel or mixed-fuel oper-

- ation retains all the OEM fuel system, engine calibration, and emission control system functionality when operating on the fuel with which the vehicle/engine was originally certified.
- (C) The test group/engine family converted to dual-fuel or mixed-fuel operation retains all the functionality of the OEM OBD system (if the OEM vehicles/engines were required to be OBD equipped) when operating on the fuel with which the vehicle/engine was originally certified.
- (D) The test group/engine family converted to dual-fuel or mixed-fuel operation properly purges hydrocarbon vapor from the evaporative emission canister when the vehicle/engine is operating on the alternative fuel.
- (E) The test group/engine family converted to an alternative fuel uses fueling systems, evaporative emission control systems, and engine powertrain components that are compatible with the alternative fuel and designed with the principles of good engineering judgment.
- (iv) You must include any other information as the Administrator may deem appropriate, which may include test data, to establish the conversion system is for the purpose of conversion to a clean alternative fuel.
- (7) Conversion systems must be properly installed and adjusted such that the vehicle/engine operates consistent with the principles of good engineering judgment and in accordance with all applicable regulations.
- (8) EPA may ask for any documentation and/or ask you to conduct emission testing to demonstrate the conversion is for the purpose of a clean alternative fuel.

§85.524 Legacy standards.

Prior to April 8, 2011, the following emission standards applied for conversions of vehicles/engines with an original model year of 1992 or earlier:

(a) Exhaust hydrocarbons. Light-duty vehicles must meet the Tier 0 hydrocarbon standard specified in 40 CFR 86.094-8. Light-duty trucks must meet the Tier 0 hydrocarbon standard specified in 40 CFR 86.094-9. Otto-cycle heavy-duty engines must meet the hydrocarbon standard specified in 40 CFR 86.096-10. Diesel heavy-duty engines

must meet the hydrocarbon standard in 40 CFR 86.096-11.

- (b) CO, NO_X and particulate matter. Vehicles/engines must meet the CO, NO_X , and particulate matter emission standards that applied for the vehicle's/engine's original model year. If the engine was certified with a Family Emission Limit, as noted on the emission control information label, the modified engine may not exceed this Family Emission Limit.
- (c) Evaporative hydrocarbons. Vehicles/engines must meet the evaporative hydrocarbon emission standards that applied for the vehicle's/engine's original model year.

§85.525 Applicable standards.

To qualify for an exemption from the tampering prohibition, vehicles/engines that have been converted to operate on a different fuel must meet emission standards and related requirements as follows:

- (a) The modified vehicle/engine must meet the requirements that applied for the OEM vehicle/engine, or the most stringent OEM vehicle/engine standards in any allowable grouping. Fleet average standards do not apply unless clean alternative fuel conversions are specifically listed as subject to the standards.
- (1) If the vehicle/engine was certified with a Family Emission Limit for NO_X , NO_X +HC, or particulate matter, as noted on the vehicle/engine emission control information label, the modified vehicle/engine may not exceed this Family Emission Limit.
- (2) Compliance with greenhouse gas emission standards is demonstrated as follows:
- (i) Subject to the following exceptions and special provisions, compliance with light-duty vehicle greenhouse gas emission standards is demonstrated by complying with the N_2O and CH_4 standards and provisions set forth in 40 CFR 86.1818–12(f)(1) and the in-use CO_2 exhaust emission standard set forth in 40 CFR 86.1818–12(d) as determined by the OEM for the subconfiguration that is identical to the fuel conversion emission data vehicle (EDV).
- (A) If the OEM complied with the light-duty greenhouse gas standards

using the fleet averaging option for N_2O and CH_4 , as allowed under 40 CFR 86.1818–12(f)(2), the calculations of the carbon-related exhaust emissions require the input of grams/mile values for N_2O and CH_4 , and you are not required to demonstrate compliance with the standalone CH_4 and N_2O standards.

- (B) If the OEM complied with alternate standards for N_2O and/or CH_4 , as allowed under 40 CFR 86.1818–12(f)(3), you may demonstrate compliance with the same alternate standards.
- (C) If the OEM complied with the nitrous oxide (N2O) and methane (CH4) standards and provisions set forth in 40 CFR 86.1818-12(f)(1) or 86.1818-12(f)(3), and the fuel conversion CO2 measured value is lower than the in-use CO2 exhaust emission standard, you also have the option to convert the difference between the in-use CO2 exhaust emission standard and the fuel conversion CO2 measured value into GHG equivalents of CH₄ and/or N₂O, using 298 g CO₂ to represent 1 g N₂O and 25 g CO₂ to represent 1 g CH₄. You may then subtract the applicable converted values from the fuel conversion measured values of CH₄ and/or N₂O to demonstrate compliance with the CH4 and/or N2O standards.
- (ii) Compliance with heavy-duty engine greenhouse gas emission standards is demonstrated by complying with the CO₂, N₂O, and CH₄ standards (or FELs, as applicable) and provisions set forth in 40 CFR 1036.108 for the engine family that is represented by the fuel conversion emission data engine (EDE). If the fuel conversion CO2 measured value is lower than the CO2 standard (or FEL, as applicable), you have the option to convert the difference between the CO₂ standard (or FEL, as applicable) and the fuel conversion CO2 measured value into GHG equivalents of CH4 and/or N₂O, using 298 g/hp-hr CO₂ to represent 1 g/hp-hr N₂O and 25 g/hp-hr CO₂ to represent 1 g/hp-hr CH₄. You may then subtract the applicable converted values from the fuel conversion measured values of CH₄ and/or N₂O to demonstrate compliance with the CH₄ and/ or N₂O standards (or FEL, as applicable).
- (3) Conversion systems for engines that would have qualified for chassis